

## MAJOR MINERAL DEPOSITS, METALLOGENESIS, AND TECTONICS OF THE RUSSIAN FAR EAST, ALASKA, AND THE CANADIAN CORDILLERA

### Project Summary, Publication List, and Web Sites

**INTRODUCTION.** This project is providing critical information for collaborators and customers on the major metalliferous mineral resources, metallogenic patterns, and crustal origin and evolution of mineralizing systems for the Russian Far East, Alaska, and the Canadian Cordillera.

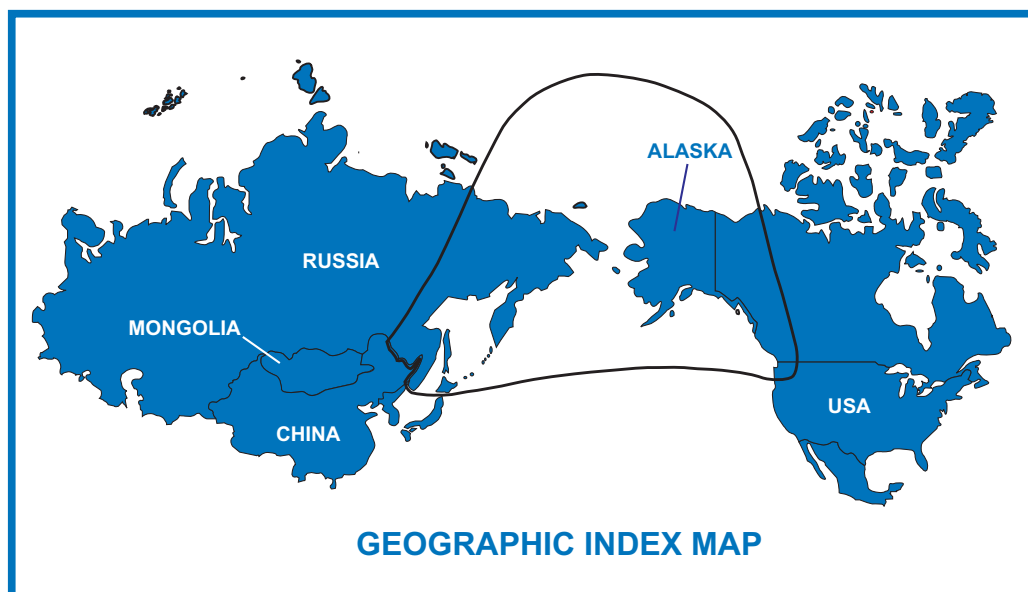
**COLLABORATING AGENCIES.** The major collaborating agencies for the project are the Russian Academy of Sciences, ROSKOMNEDRA, the Alaska Division of Geological and Geophysical Surveys, the Geological Survey of Canada, the U.S. Geological Survey, the University of Alaska, Michigan State University, Exxon Production Research, and the Geological Survey of Japan. Other Western supporters are Stanford University, Colorado School of Mines, University of Arizona, the Northwest Mining Association, the Alaska Miners Association, and the Society of Economic Geologists.

**CUSTOMERS.** Customers include scientists and managers in major governmental agencies, universities, private environmental, resource, and information companies, news media, and professional organizations in North America, Eastern Asia, and the Russian Far East. A major international customer is the Commerce Working Group of the Russia-USA Commission.

**GOALS AND BENEFITS.** The major scientific goals and benefits of the project are to: (1) provide a comprehensive international data base on the mineral resources of the region that is the first, extensive knowledge available in English in the West; (2) provide major new interpretations of the origin and crustal

evolution of mineralizing systems and their host rocks, thereby enabling enhanced, broad-scale tectonic reconstructions and interpretations; and (3) promote trade and scientific and technical exchanges between the North America and Eastern Asia. Data from the project are providing sound scientific data and interpretations for commercial firms, governmental agencies, universities, and individuals that are developing new ventures and studies in the project area, and for land-use planning studies that deal with both mineral potential issues. The Russian Far East, Alaska and the Canadian Cordillera, have vast potential for known and undiscovered mineral deposits. In addition, major belts of mineral deposits (metallogenic belts) and host geologic units can be traced around the Circum-North Pacific from the Russian Far East into Alaska and the Canadian Cordillera.

**SUCCESSOR PROJECT.** This project is providing data, methods, and interpretations for a successor project on the Mineral Resources, Metallogenes, and Tectonics of the Northeast Asia (Eastern and Southern Siberia, Mongolia, Northeastern China, South Korea, and Japan) that is a joint study of Russian Academy of Sciences, Academy of Sciences of the Sakha Republic (Yakutia), VNIIOkeangeologia and Ministry of Natural Resources of the Russian Federation, Mongolian Academy of Sciences, Mongolian University of Science and Technology, Mongolian National University, Jilin University, Changchun, China, China, Geological Survey, the Korean Institute of Geosciences and Mineral Resources, the Geological Survey of Japan/AIST, and the U.S. Geological Survey.



## MAJOR PUBLICATIONS

- Metallogenesis of Mainland Alaska and Russian Northeast by Nokleberg, W.J., Bundtzen, T.K., Grybeck, Donald, Koch, R.D., Eremin, R.A., Rozenblum, I.S., Sidorov, A.A., Byalobzhesky, S.G., Sosunov, G.M., Shpikerman, V.I., and Gorodinsky, M.E., 1993: U.S. Geological Survey Open-File Report 93-339, 222 pages, 1 map, scale 1:4,000,000; 5 maps, scale 1:10,000,000 (\$48.00 paper format; \$6.25 microfiche format; \$3.50 shipping, either format).
- Circum-North Pacific Tectono-Stratigraphic Terrane Map by Nokleberg, W.J., Parfenov, L.M., and Monger, J.W.H., and Baranov, B.V., Byalobzhesky, S.G., Bundtzen, T.K., Feeney, T.D., Fujita, Kazuya, Gordey, S.P., Grantz, Arthur, Khanchuk, A.I., Natal'in, B.A., Natapov, L.M., Norton, I.O., Patton, W.W., Jr., Plafker, George, Scholl, D.W., Sokolov, S.D., Sosunov, G.M., Stone, D.B., Tabor, R.W., Tsukanov, N.V., Vallier, T.L. and Wakita, Koji, 1994: U.S. Geological Survey Open-File Report 94-714, 2 sheets, scale 1:5,000,000; 2 sheets, scale 1:10,000,000, 211 p. (\$54.00 paper format; \$8.75 microfiche format; \$3.50 shipping, either format).
- Significant Metalliferous Lode Deposits and Placer Districts for the Russian Far East, Alaska, and the Canadian Cordillera by Nokleberg, W.J., Bundtzen, T.K., Dawson, K.M., Eremin, R.A., Goryachev, N.A., Koch, R.D., Ratkin, V.V., Rozenblum, I.S., Shpikerman, V.I., Frolov, Y.F., Gorodinsky, M.E., Melnikov, V.D., Ognyanov, N.V., Petrachenko, E.D., Petrachenko, R.I., Pozdeev, A.I., Ross, K.V., Wood, D.H., Grybeck, Donald, Khanchuk, A.I., Kovbas, L.I., Nekrasov, I.Ya., and Sidorov, A.A., 1996: U.S. Geological Survey Open-File Report 96-513-A (paper format), 385 p. (\$57.75 paper format; \$4.00 microfiche format; \$3.50 shipping, either format).
- Significant Metalliferous Lode Deposits and Placer Districts for the Russian Far East, Alaska, and the Canadian Cordillera by Nokleberg, W.J., Bundtzen, T.K., Dawson, K.M., Eremin, R.A., Goryachev, N.A., Koch, R.D., Ratkin, V.V., Rozenblum, I.S., Shpikerman, V.I., Frolov, Y.F., Gorodinsky, M.E., Melnikov, V.D., Diggles, M.F., Ognyanov, N.V., Petrachenko, E.D., Petrachenko, R.I., Pozdeev, A.I., Ross, K.V., Wood, D.H., Grybeck, Donald, Khanchuk, A.I., Kovbas, L.I., Nekrasov, I.Ya., and Sidorov, A.A., 1997: U.S. Geological Survey Open-File Report 96-513-B (Digital - CD format). (\$13.50 plus \$3.50 shipping). Available for free downloading from USGS Web site at: <http://geopubs.wr.usgs.gov/open-file/of96-513-b/>
- Summary Circum-North Pacific Tectono-Stratigraphic Terrane Map by Nokleberg, W.J., Parfenov, L.M., and Monger, J.W.H., and Baranov, B.V., Byalobzhesky, S.G., Bundtzen, T.K., Feeney, T.D., Fujita, Kazuya, Gordey, S.P., Grantz, Arthur, Khanchuk, A.I., Natal'in, B.A., Natapov, L.M., Norton, I.O., Patton, W.W., Jr., Plafker, George, Scholl, D.W., Sokolov, S.D., Sosunov, G.M., Stone, D.B., Tabor, R.W., Tsukanov, N.V., Vallier, T.L. and Wakita, Koji, 1997: U.S. Geological Survey Open-File Report 96-727 1 sheet, scale 1:10,000,000. (\$15.00 plus \$3.50 shipping); and Geological Survey of Canada Open 3428, 1 sheet, scale 1:10,000,000 (\$19.50 Canadian; includes shipping). Available from USGS Maps on Demand Web site: <http://rmmcweb.cr.usgs.gov/public/mod/interest.html> (\$15.00).
- Mineral Deposit and Metallogenic Belt Maps of the Russian Far East, Alaska, and the Canadian Cordillera by Nokleberg, W.J., Bundtzen, T.K., Dawson, K.M., Eremin, R.A., Ratkin, V.V., Shpikerman, V.I., Goryachev, N.A., Khanchuk, A.I., Koch, R.D., Rozenblum, I.S., Gorodinsky, M.E., Frolov, Y.F., Pozdeev, A.I., Parfenov, L.M., and Sidorov, A.A., 1997: U.S. Geological Survey Open-File Report 97-161 and Geological Survey of Canada Open File 3446, 2 sheets, scale 1:5,000,000, 5 sheets, scale 1:10,000,000. USGS version available from USGS Maps on Demand Web site: <http://rockyweb.cr.usgs.gov/mod/ak.html> (\$15.00 per sheet).
- Summary Terrane, Mineral Deposit, and Metallogenic Belt Maps of the Russian Far East, Alaska, and the Canadian Cordillera by Nokleberg, W.J., West, T.D., Dawson, K.M., Shpikerman, V.I., Bundtzen, T.K., Parfenov, L.M., Monger, J.W.H., Ratkin, V.V., Baranov, B.V., Byalobzhesky, S.G., Diggles, M.F., Eremin, R.A., Fujita, K., Gordey, S.P., Gorodinsky, M.E., Goryachev, N.A., Feeney, T.D., Frolov, Y.F., Grantz, A., Khanchuk, A.I., Koch, R.D., Natalin, B.A., Natapov, L.M., Norton, I.O., Patton, W.W. Jr., Plafker, G., Pozdeev, A.I., Rozenblum, I.S., Scholl, D.W., Sokolov, S.D., Sosunov, G.M., Stone, D.B., Tabor, R.W., Tsukanov, N.V., and Vallier, T.L., 1998: U.S. Geological Survey Open-File Report 98-136, 1 CD-ROM. Available for free downloading from USGS Web site at: <http://geopubs.wr.usgs.gov/open-file/of98-136/>.
- Geographic Information Systems (GIS) Compilation of Geophysical, Geologic, and Tectonic Maps for the Circum-North Pacific, by Greninger, M.L., Klemperer, S.L., and Nokleberg, W.J., 1999: U.S. Geological Survey Open-File Report 99-422, 1 CD-ROM. Available for free downloading from USGS Web site: <http://geopubs.wr.usgs.gov/open-file/of99-422/>
- Phanerozoic Tectonic Evolution of the Circum-North Pacific by Nokleberg, W.J., Parfenov, L.M., Monger, J.W.H., Norton, I.O., Khanchuk, A.I., Stone, D.B., Scotese, C.R., Scholl, D.W., and Fujita, K., 2001: U.S. Geological Survey Professional Paper 1626, 126 p. Available for free downloading from USGS Web site: <http://geopubs.wr.usgs.gov/prof-paper/pp1626/>

Dynamic Computer Model for the Metallogeneses and Tectonics of the Circum-North Pacific, by Scotese, C.R., Nokleberg, W.J., Monger, J.W.H., Norton, I.O., Parfenov, L.M., Bundtzen, T.K., Dawson, K.M., Eremin, R.A., Frolov, Y.F., Fujita, Kazuya, Goryachev, N.A., Khanchuk, A.I., Pozdeev, A.I., Ratkin, V.V., Rodinov, S.M., Rozenblum, I.S., Shpikerman, V.I., Sidorov, A.A., and Stone, D.B., 2001, in Nokleberg, W.J. and Diggles, M.F., eds.: U.S. Geological Survey Open-File Report 01-161, 1 CD-ROM. Available for free downloading from USGS Web site: <http://geopubs.wr.usgs.gov/open-file/of01-261/>

### Ordering of Major Publications:

Above U.S.G.S. Open-File Reports can be ordered by mail from the U.S. Geological Survey, Information Services, ESIC P.O. Box 25286, MS 517, Denver, CO 80225 (Telephone 303-202-4210) (FAX: 303-202-4188). The reports can also be borrowed for copying from the Earth Science Information Center, Suite 101, U.S.G.S., 4230 University Drive, Anchorage, Alaska 99508-4667 (Telephone 907-786-7007).

Above G.S.C. Open-Files can be ordered by mail from: (1) the Geological Survey of Canada, Map and Publications Sales, 101 - 605 Robson Street, Vancouver, British Columbia, Canada V6B 5J3 (Telephone 604-666-0271).

### VOLUME ON MINERAL DEPOSITS OF THE RUSSIAN NORTHEAST BY NORTHEAST SCIENCE CENTER, RUSSIAN ACADEMY OF SCIENCES, MAGADAN

Sketches on Metallogeny and Geology of Mineral Deposits in Northeastern Russia edited by Sidorov, A.A., and Goryachev, N.A., 1994: Northeast Science Center, Magadan, Far East Branch, Russian Academy of Sciences, 106 p. (in Russian). (Supplement to U.S.G.S. Open-File Report 93-339 containing detailed descriptions of mineral deposits and metallogenic belts).

Sketch on Metallogeny by Sidorov, A.A., Eremin, R.A., and Byalobzhesky, S.G., p. 7-11 (in Russian).

Major Metallogenic Belts in Northeastern Russia by Eremin, R.A., Shpikerman, V.I., and Sidorov, A.A., p. 12-31 (in Russian).

Gold by Goryachev, N.A., p. 32-54 (in Russian).

Silver by Savva, N.E., p. 55-63 (in Russian).

Tin Deposits by Pristavko, V.A., p. 64-69 (in Russian).

Tungsten by Goryachev, N.A., p. 70-73 (in Russian).

Cobalt by Goryachev, N.A., p. 74-75 (in Russian).

Copper by Gorodinsky, M.E., and Shpikerman, V.I., p. 76-80 (in Russian).

Lead-zinc by Shpikerman, V.I., p. 81-87 (in Russian).

Antimony by Goryachev, N.A., p. 88-90 (in Russian).

Mercury by Savva, N.E., p. 91-97 (in Russian).

Iron by Shpikerman, V.I., p. 98 (in Russian).

### SYMPOSIUM VOLUME ON GEOLOGY AND MINERAL DEPOSITS OF THE RUSSIAN FAR EAST BY ALASKA MINERS ASSOCIATION

The Geology and Mineral Deposits of the Russian Far East edited by Bundtzen, T.K., Fonseca, A.L., and Mann, Roberta, 1995: Alaska Miners Association, Glacier House Publications, Anchorage, Alaska, 156 p. Volume can be purchased for \$40.00 (US) from Alaska Miners Association, 501 West Northern Lights, Suite 203, Anchorage Alaska 99503 (Phone: 907-276-0347; FAX: 907-278-7997).

The Russian Far East Mineral Industry - A Brief History by Bundtzen, T.K., p. 11-18.

Magmatic Formations and Mineralization in the Okhotsk-Chukotka Volcanic Belt by Popeko, V.A., p. 19-28.

Placer and Hardrock Gold Deposits of the Central Kolyma Area, Magadan Region, Northeast Russia by Tchapko, Vitali, p. 29-35.

Platinum Occurrences in Ultramafic Massifs of the Koryak-Kamchatka Region by Sidorov, E.G., p. 36-38.

Technologies Employed by the Russian Placer Mining Industry by Bogdanov, E.I., p. 50-59.

Tectonics and Regional Metallogeny of the Verkhoyansk-Kolyma Region by Parfenov, L.M., 1995, p. 61-84.

Lode Mineral Deposits of the Southern Russian Far East by Ratkin, V.V., and Khanchuk, A.I., p. 85-89.

Mesozoic Tectonics of the Southern Russian Far East and its Relationship to the Junction of the Central Asian and Pacific Mobile Belts by Borukayev, C.B., and Natal'in, B.A., p. 90-95.

Genetic Types of Rare Earth Element (REE) Mineralization in the Russian Far East by Nekrasov, I.Ya., p. 96-102.

Metallogeny of Gold-Silver Deposits of Northeast Russia by Sidorov, A.A., and Eremin, R.A., p. 109-120.

About Glaucophane Genesis in Connection with Blueschists near Seldovia by Plyusnina, L.P., and Likhoidov, G.G., Alaska, p. 121-127.

Results of a Thermo-Barometric Study of Hydrothermal Fluids and Magmatic System at Democrat Mine, Richardson District, Alaska by Pakhomova, V., Belyaeva, B., and Tishkin, B., p. 128-133.

Geologic Review of Commercial Mineralization Types of the Okhotsk-Chukotka Volcanic Belt by Goncharov, V.I., p. 134-140.

Mesothermal Lode Gold Deposits of the Russian Far East by Goryachev, N.A., p. 141-152.

Mineral Resources of the Magadan Region and Problems of Their Development by Goncharov, V.I., p. 153-156.

### DERIVATIVE PUBLICATIONS:

#### Articles on Mineral Resources of Russian Far East

Metallogeny of the Russian Northeastern Region and Alaska: A Comparative Study, by Sidorov, A.A., and Eremin, R.A., 1994: Geology of Pacific Ocean, v. 11, p. 179-188.

Metallogeny of the Southern Far East Russia by Ratkin, V.V., 1994: Chishitsu News, Geological Survey of Japan, no. 480, p. 14-18 (in Japanese).

Mineral Resources of the Northern Far East Russia by Ishihara S., and Kamitani M., 1994: Chishitsu News, Geological Survey of Japan, no. 480, p. 1-13 (in



- Geology and Genesis of the Natalka Gold Deposit, Northeast Russia by Eremin, R.A., Voroshin, S.F., Sidorov, V.A., Shakhtyrov, V.G., and Pristavko, V.A., 1994: *International Geology Review*, v. 36, p. 1113-1138.
- The Russian Far East Mineral Industry, Part I: A Brief History by Bundtzen, T.K., 1994: *Russian Far East News*, Alaska Center for International Business, American Russian Center, University of Alaska Anchorage, December 1994, p. 1-5, 12.
- The Russian Far East Mineral Industry, Part II: The Industry Today, by Bundtzen, T.K., 1995: *Russian Far East News*, Alaska Center for International Business, American Russian Center, University of Alaska Anchorage, January, 1995, p. 1-4.
- The Russian Far East Mineral Industry, Part III: The Industry Today, by Bundtzen, T.K., 1995: *Russian Far East News*, Alaska Center for International Business, American Russian Center, University of Alaska Anchorage, February, 1995, p. 1-4.
- The Russian Far East Mineral Industry, Part IV: The Future, by Bundtzen, T.K., 1995: *Russian Far East News*, Alaska Center for International Business, American Russian Center, University of Alaska Anchorage, March, 1995, p. 1-5.
- Pre- And Post-Accretionary Metallogeny of the Southern Russian Far East by Ratkin, Vladimir, 1995: *Resource Geology Special Issue* 18, p. 127-133.
- Stratiform and Stratabound Ore Mineralization of South Segment of the Kolyma Structural Loop (Northeastern Russia) by Shpikerman, V.I., 1995, *in* Simakov, K.V., and Thurston, D.K., eds.: *Proceedings of the International Conference on Arctic Margins*, Magadan, Russia, 1994: North East Science Center, Magadan, Far East Branch, Russian Academy of Sciences, p. 292-299.
- Plate Tectonic Metallogenesis of Accretionary Fold Systems by Shpikerman, V.I., and Goryachev, N.A., 1996, *in* V.A. Koroteev, ed., *Metallogeny of Fold Systems form the Position of Plate Tectonics*: Russian Academy of Sciences, Urals Branch, Ekaterinburg, p. 64-78 (in Russian).
- Tectonic setting of synorogenic gold deposits of the Pacific Rim, by Goldfarb, R.J., Phillips, G.N., and Nokleberg, W.J., 1998, *Ore Geology Reviews*, v. 13, p. 185-218.
- Tectonic model for genesis of major granitoid-related gold metallogenic belts in the Russian Far East and Alaska, by Nokleberg, W.J., Goryachev, N.A., Shpikerman, V.I., Bundtzen, T.K., Khanchuk, A.I., Ratkin, V.V., and Parfenov, L.M., 2000, *in* Gelman, M.L., Goncharov, V.I., Goryachev, N.A., and Shakhtyrov, V.G., eds., *Gold Mineralization and Granitoid Magmatism of the North Pacific*: North-East Science Center, Russian Academy of Sciences, Magadan, and International Association for the Geochemistry of Ore Deposits (IAGOD), p. 9-46 (in Russian).

#### **Articles on Mineral Resources and Tectonics of Alaska and the Canadian Cordillera**

- Regional Metallogeny by Dawson, K.M., Panteleyev, A., Sutherland Brown, A., and Woodsworth, G.J., 1992,

Chapter 19, *in* *Geology of the Cordilleran Orogen in Canada*, Gabrielse, H., and Yorath, C.J., eds., Geological Society of America: The Geology of North America, v. G-2, p. 707-768.

- Metallogenesis and Tectonics of Porphyry Cu and Mo (Au, Ag), and Granitoid-Hosted Au Deposits of Alaska by Nokleberg, W.J., Bundtzen, T.K., Brew, D.A., and Plafker, George, 1995, *in* Schroeter, Tom, ed.: *Porphyry deposits of the Northwestern Cordillera*: Canadian Institute of Mining, Metallurgy, and Petroleum Special Volume 46, 101 manuscript p. 103-141.
- Evolution of the Northern North American Cordillera: Generation, Fragmentation, and Displacement and Accretion of Successive North American Plate-Margin Arcs by Monger, J.W.H., and Nokleberg, W.J., 1996, *in* Coyner, A.R., and Fahey, P.L., eds., *Geology and Ore Deposits of the American Cordillera*: Geological Society of Nevada Symposium Proceedings, Reno/Sparks, Nevada, April 1995, p. 1133-1152.
- Tectonic Setting of Synorogenic Gold Deposits of the Pacific Rim by Goldfarb, R.J., Phillips, G.N., and Nokleberg, W.J., 1998, *Ore Geology Reviews*, v. 13, p. 185-218.

#### **Articles on Tectonics of Northeastern Asia.**

- Accretionary tectonics of the Koryak-Chukotka Segment of the Pacific Belt by Sokolov, S.D., 1992: *Nauka*, Moscow, 182 p. (in Russian).
- Terranes and Accretionary Tectonics of Northeastern Asia by Parfenov, L.M., Natapov, L.M., Sokolov, S.D., and Tsukanov, N.V., 1993: *Geotectonics*, v. 27, p. 62-72.
- Terranes and accretionary tectonics of northeast Asia by Parfenov, L.M., Natapov, L.M., Sokolov, S.D., and Tsukanov, N.V., 1993: *Geotektonika*, no.1, p. 68-78 (in Russian).
- Terrane Analysis and Accretion in Northeast Asia by Parfenov, L.M., Natapov, L.M., Sokolov, S.D., and Tsukanov, N.V., 1993: *The Island Arc*, v. 2, p. 35-54.
- Accretionary History of Northeast Asia by Parfenov, L. M., 1995, *in* Thurston, D. K., and Fujita, K., eds.: *Proceedings International Conference on Arctic Margins*, Anchorage, Alaska, September, 1992, U.S. Department of the Interior, Minerals Management Service, OCS Study MMS 94-0040, p. 183-188.
- Terranes and Formation of the Mesozoic Orogenic Belts of Eastern Yakutia by Parfenov, L.M., 1995: *Tikhookeanskaya Geologia*, v. 14, no.6, p. 32-43 (in Russian).
- Mesozoic Orogenic Belts of Eastern Yakutia and Some Problems Related with Their Study by Parfenov, L.M., Layer, P., Stone, D., and Fujita, K., 1996: *Nauka i obrazovanie*, no. 1, p. 38-44 (in Russian).
- Terranes and Formation of the Transbaikalian Orogenic Belts by Parfenov, L.M., Bulgatov, A.N., and Gordienko, I.V., 1996: *Tikhookean-skaya Geologia*, v. 15, no. 4, p. 3-15 (in Russian).
- Terranes of the Koryak Highland by Sokolov, S.D., and Byalobzheskiy, S.G., 1996: *Geotectonics*, no. 6, p. 68-80.

## Articles on Tectonics of Southeastern Russia.

- Northern Pacific orogens: A collage of terranes and history of formation by Parfenov, L.M., Nokleberg, W.J., Monger, J.W.H., Norton, I.O., Stone, D.B., Fujita, K., Khanchuk, A.I., and Scholl, D.W., 1999: *Geology and Geophysics*, v. 40, no. 11, p. 1563-1574 (in Russian). Kuyul Ophiolite terrane by Khanchuk, A.I., Grigorev, V.I., Golozubov, V.V., Govorov, G.I., Krylov, K.A., Kurnosov, V.I., Panchenko, IV., Prainikova, I.E., and Chudaev, O.V., 1990: *Russian Academy of Sciences, Far East Branch, Vladivostok*, 108 p. (in Russian).
- Ganychalan Terrane of the Koryak Highlands by Khanchuk, A.I., Golozubov, V.V., Panchenko, I.V., Ignatev, A.I., Chudaev, O.V., 1992: *Pacific Geology*, no. 4., p. 82-93 (in Russian).
- History and Modes of Mesozoic Accretion in Southeastern Russia by Natal'in, B.A., 1993: *The Island Arc*, v. 2, p. 15-34.
- Stratigraphic Record of Paleo-Ocean Sediments in the Nadanhada Range and the Adjacent Regions of Sikote-Alin by Khanchuk, A.I., and Philippov, A.N., 1993: *Shenyang Institute of Geology and Mineral Resources, Chinese Academy of Geological Sciences, Memoirs*, no. 2, p. 1-19.
- New Data on Early Cretaceous Rocks in the Lower Amur River Area by Khanchuk, A.I., Ognyanov, N.V., Popova, I.M., and Filippov, A.N., 1994: *Doklady, Akademii Nauk*, Vol. 338, no. 5., p. 666-671 (in Russian).
- Tectonics of Russian Southeast by Khanchuk, A.I., 1994: *Chishitsu News, Geological Survey of Japan*, no. 480, p. 19-22 (in Japanese).
- Environment of Au Quartz Lodes of Mesozooids in Northeastern Asia by Goryachev, N.A., 1995, *in* Simakov, K.V., and Thurston, D.K., eds.: *Proceedings of the International Conference on Arctic Margins*, Magadan, Russia, 1994: North East Science Center, Magadan, Far East Branch, Russian Academy of Sciences, p. 259-266.
- Sketches on Geology and Minerals of Primorskiy Krai by Khanchuk, A.I., Ratkin, V.V., Ryazantseva, M.D., Golozubov, V.V., and Gonokhova, N.G., 1995: *Dalnauka, Vladivostok, Far East Branch, Russian Academy of Sciences*, 68 p. (in Russian).
- Taukha and Zhuravlevka Terranes of the South Sikhote-Alin Fragments of the Early Cretaceous margin of Asia by Golozubov, V.V., and Khanchuk, A.I., 1995: *Geology of Pacific Ocean*, v. 14, p. p. 13-25 (in Russian).
- Geology and Mineral Deposits of Primorsky Krai (territory) by Khanchuk, A.I., Ratkin, V.V., Ryazantseva, M.D., Golozubov, V.V., and Gonokhova, N.G., 1996: *Dalnauka, Vladivostok, Far East Branch, Russian Academy of Sciences*, 61 p., 3 sheets, scale 1:2,500,000.
- Taukha and Zhuravlevka Terranes of the South Sikhote-Alin Fragments of the Early Cretaceous margin of Asia by Golozubov, V.V., and Khanchuk, A.I., 1996: *Geology of Pacific Ocean*, v. 12, p. 213-220.

## General Interest Article

The Life of Geologists in the Former Soviet Union by Parfenov, L.M., 1996: *GSA Today*, v. 6, no. 4, p. 6-7.

## Abstracts Talks, and Poster Displays

About 35 abstracts for invited talks and poster displays at symposia and seminars at major scientific and professional meetings, and at universities in Russian Far East and North America. Abstracts are on various aspects of mineral deposits, metallogenesis, bedrock geology, and tectonics of region by Russian, Alaskan, and Canadian project members.

## INTERNET/WEB SITES

### Project Information

<http://minerals.usgs.gov/west/projects/majdeps.html>

### Project Publications Available for Free on Internet/Web

- Significant Metalliferous and Selected Non-Metalliferous Lode Deposits and Placer Districts for the Russian Far East, Alaska, and Canadian Cordillera: U.S.G.S. Open-File Report 96-513-B: <http://geopubs.wr.usgs.gov/open-file/of96-513-b/>
- Summary Terrane, Mineral Deposit, and Metallogenic Belt Maps of the Russian Far East, Alaska, and the Canadian Cordillera: U.S.G.S. Open-File Report 98-136: <http://geopubs.wr.usgs.gov/open-file/of98-136/>
- Geographic Information Systems (GIS) Compilation of Geophysical, Geologic, and Tectonic Maps for the Circum-North Pacific: U.S. Geological Survey Open-File Report 99-422: <http://geopubs.wr.usgs.gov/open-file/of99-422/>
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## MAJOR PUBLICATIONS IN PREPARATION

Metallogenesis of the Russian Far East, Alaska, and the Canadian Cordillera. Major report in preparation for publication as an U.S.G.S. Open-File Report and Professional Paper.

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